

IN THE CLAIMS

1. (Currently Amended) A vehicle, comprising:
two or more wheels, and
one or more electric motors, each mounted in an in-wheel, near-wheel, or direct-drive manner,
wherein at least one motor is an in-wheel motor with torque density of at least 20 Nm/kg and ~~comprises~~ includes:

a multiphase machine having:

a rotor,

a stator, ~~the stator comprising~~ including a plurality of stator core elements, the plurality of stator core elements being arranged in groups, each group of stator core elements being associated with a corresponding one ~~of the phases~~ phase of the multiphase machine, the stator core elements in each group being structurally and electromagnetically isolated from the stator core elements in each other group, and

a controller for controlling electrical flow in each group of stator core elements independently of electrical flow in each other group, whereby each phase of the multiphase machine is controlled independently of each other phase.

2. (Currently Amended) A ~~car or other vehicle with two or more wheels and one or more electric motors to move the vehicle~~ comprising:

two or more wheels, and

~~where at least one electric motor moving the vehicle; the at least one electric motor~~
includes ~~[[is]]~~ an in-wheel motor with torque density of at least 20 Nm/kg.

3. (Currently Amended) A ~~car or other vehicle with two or more wheels and one or more electric motors to move the vehicle~~ comprising:

two or more wheels, and

~~where at least one electric motor moving the vehicle; the at least one electric motor includes~~ [[is]] a near-wheel motor with torque density of at least 20 Nm/kg.

4. (Currently Amended) ~~A ear or other vehicle with two or more wheels and one or more electric motors to move the vehicle comprising:~~

two or more wheels, and

at least one electric motor, where each at least one electric motor is mechanically linked with only one wheel of the vehicle and the torque density of each at least one electric motor is at least 20 Nm/kg.

5. (Currently Amended) ~~A ear or other vehicle with two or more wheels and one or more electric motors to move the vehicle comprising:~~

two or more wheels, and

at least one electric motor, where each at least one electric motor directly drives one or more wheels of the vehicle and the torque density of at least one motor is at least 20 Nm/kg.

6. (Currently Amended) ~~A ear or other vehicle with two or more wheels and one or more electric motors to move the vehicle comprising:~~

two or more wheels, and

at least one electric motor, where each at least one electric motor [[is]] includes an in-wheel motor with each of its electromagnetic circuits being sufficiently isolated so that electromagnetic and electrical interference between the circuits is substantially eliminated in order to increase the effective response of [[the]] each at least one electric motor to control and optimization.

7. (Currently Amended) ~~A ear or other vehicle with two or more wheels and one or more electric motors to move the vehicle comprising:~~

two or more wheels, and

at least one electric motor, where each at least one electric motor [[is]] includes an in-wheel motor with a motor control scheme that can be dynamically adapted to user inputs, machine operating conditions and machine operating parameters.